



## SUBSTITUTE SPECIFICATION

### AN ANALYSIS SYSTEM

This application represents the national stage of PCT/SE03/00081 filed January 20, 2003, which makes a 119(e) priority claim to U.S. provisional application 60/384,118 filed May 31, 2002. Such PCT application additionally makes foreign priority claims to each of Swedish applications 0200147-7 filed January 18, 2002, and 0200215-2 filed January 25, 2002.

#### Technical Field of the Invention

The present invention relates to an apparatus for analysing the condition of a machine, and to a system for analysing the condition of a machine. The invention also relates to method of operating such a system.

#### Description of Related Art

Machines with moving parts are subject to wear with the passage of time, which often causes the condition of the machine to deteriorate. Examples of such machines with movable parts are motors, pumps, generators, compressors, lathes and CNC-machines. The movable parts may include a shaft and bearings.

In order to prevent machine failure, such machines should be subject to maintenance, depending on the condition of the machine. Therefore the operating condition of such a machine is preferably evaluated from time to time. The operating condition can be determined by measuring vibrations emanating from a bearing or by measuring temperature on the casing of the machine, which temperatures are dependent on the operating condition of the bearing. Such condition checks of machines with rotating or other moving parts are of great significance for safety and also for the length of the life of such machines. It is known to manually perform such measurements on machines. This ordinarily is done by an operator with the help

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